

### Shorter Notes

A NOTE ON *NEPHROLEPIS CORDIFOLIA* CV. DUFFII.—The principal purpose of this note is to report the occurrence of this cultivar with fertile leaves and evidently normal spores. This is, I believe, the first time that it has been recorded as fertile. The specimens were obtained from ornamental plantings at the Zanderij Airport, Paramaribo, Surinam, in 1961 (*Tryon & Kramer 5617*, GH, P). In this material the sori are borne well back of the margin of the orbicular pinnae (or pinna-lobes), the indusia are reniform to orbicular-reniform and many of the spores appear to be normally developed.

Although this cultivar is referred to *Nephrolepis cordifolia*, this identity is not entirely certain. I had anticipated that the fertile material might afford characters by which the identity could be firmly established but this has not been the case. The principal reasons for associating 'Duffii' with *N. cordifolia* are that it originally came from the Duke of York's Island, New Guinea, where *N. cordifolia* also grows; and the cultivar has been reported as having the tuber-bearing habit of *N. cordifolia*. However, this may not be a definitive character for determining the relation of the cultivar because it does not always bear tubers; nor does *N. cordifolia* always have them. The original material of 'Duffii' did not have tubers nor were they present on any of the many plants that I have seen. It is possible that 'Duffii' is a variant of another species which may also be tuber-bearing under certain circumstances, or that the tubers in 'Duffii' represent one of the characters in which it departs from its "parent" species.

Large leaves of 'Duffii' have a single vascular bundle in the petiole. *Nephrolepis cordifolia* has 1-3 bundles while some other species, such as *N. biserrata*, have 5-7. While this character suggests an affinity of 'Duffii' and *N. cordifolia*, the number of vascular bundles needs to be determined for other Malaysian species before the relation can be considered as firmly established.

The indusia of 'Duffii' are unlike those of *Nephrolepis cordifolia*

but in this character, as in the previous, the interpretation is not clear. In *N. cordifolia* the basal sorus, on the acroscopic side, has the indusium orbicular-reniform, while the others are broadly reniform to (especially toward the apex of the pinna) lunate. If the orbicular pinnae (or pinna-lobes) of 'Duffii' represent the basal portion of a pinna (or basal portion of a forked pinna), then the shape of the indusia would be consistent with a variant of *N. cordifolia*. However, the pinnae of 'Duffii' may have originated in a different manner. The shape of the indusia then would indicate that it was a variant of some other species of *Nephrolepis*.

The proper name for this plant, although correctly given by Morton (This Journal **48**: 22. 1958) as cv. Duffii, involves some technicalities of the International Code of Botanical Nomenclature and the Code of Nomenclature for Cultivated Plants, and some discussion of these may be appropriate.

Although originally described as a species (*Nephrolepis Duffii* Moore, Gard. Chron, n.s. **9**: 622, f. 113. 1878) and recently treated as a form (*N. cordifolia* f. *Duffii*) it seems that Art. 71 of the Code of Botanical Nomenclature prohibits this variant from having a name as a species, variety, form, etc. Article 71 rejects names that are based on monstrosities and cv. Duffii surely is one, for it is such an extreme deviation from the normal wild type of *Nephrolepis*. Articles 2 and 5 of the Code of Nomenclature for Cultivated Plants and Article 28 of the Code of Botanical Nomenclature both imply that the category cultivar is to be used for variants arising under cultivation, rather than variants brought into cultivation from the "wild." A strict application of these rules would leave 'Duffii' without a name. It can not have a name under the Botanical Code, as a wild plant, for it is a monstrosity; and it can not have a name under the Code for Cultivated Plants for it originally came from the "wild." However, cv. Duffii should be used in anticipation of the time that the technical objections to it may be removed.

A final matter is that of the correct form of the name. Article 15 of the Code for Cultivated Plants indicates that while culti-

vars normally have a colloquial name (in this case it might be 'Duff'), they may have a Latin name providing that there was one published prior to 1959. Since it was treated by Morton as *ev. Duffii* in 1958, the Latin is established as the correct form.  
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THREE FRONDS OF *BOTRYCHIUM OBLIQUUM*.—It is possible that the accompanying illustration and comments may add a bit to the present confusion about the *Botrychium dissectum* complex.

With too much dependence on leaf-form in the separation of this genus into species, and the endless variation within the present limitation of the species (I have a specimen of *B. dissectum* with no part of the lacy frond more than 1 mm. in width), there is small reason to be over confident in one's conclusions.

The top specimen in the illustration (Pl. 8) was a plant collected, deeply bronzed, in December in the Sourland Mountains, near Hopewell, New Jersey, and placed in a terrarium with other plants. About March 15th the growth of a new frond appeared. On April 10th the plant was transferred to a planting out of doors. The new frond was then 4 inches long. A third frond appeared about June 10th, and all three fronds grew together, on the one plant, until they were collected and pressed in November. The second growth (March 15th) is at the bottom right, the third (June 10th) at bottom left, and the one on the plant in December when the plant was taken from the wild, is at the top of the illustration.

With only a little imagination, the second growth (lower right) could be called *B. silaifolium*, or considered a variety of one of its many relatives. I draw no conclusions, but leave the photograph of the three fronds to the close consideration of pteridological ecologists.—W. L. DIX, 801 Crown Street, Morrisville, Penn.